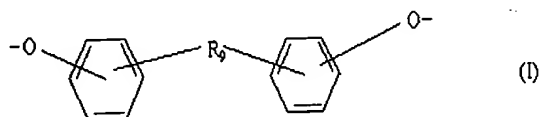


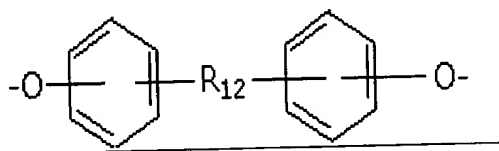
The Listing of Claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

Claim 1. (Currently Amended) A polymer with a hydrolytically unstable polymer backbone comprising monomeric repeating units having the structure:

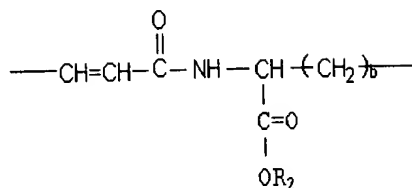


wherein R_9 is an alkyl, aryl or alkylaryl group with up to 18 carbon atoms having a pendent carboxylic acid group or the benzyl ester thereof; and monomeric repeating units having the structure:

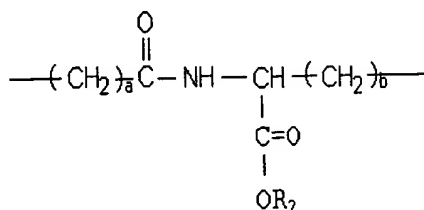


wherein R_{12} is an alkyl, aryl or alkylaryl group with up to 18 carbon atoms having a pendent carboxylic acid ester group selected from the group consisting of straight and branched alkyl and alkylaryl esters containing up to 18 carbon atoms and ester derivatives of biologically and pharmaceutically active compounds covalently bonded to said polymer, provided that said ester group is not a benzyl group or a group that is removed by hydrogenolysis.

Claim 2. (Original) The polymer of claim 1, wherein R_9 has a structure selected from the group consisting of:

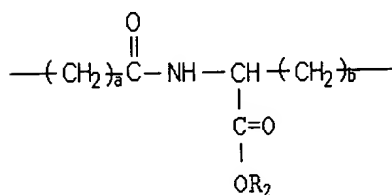


and



wherein R_2 is hydrogen or a benzyl group and a and b are independently 0, 1 or 2.

Claim 3. (Original) The polymer of claim 2, where in R_9 has the structure:

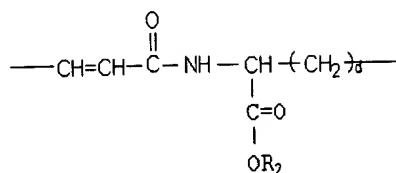


wherein a is 2 and b is 1.

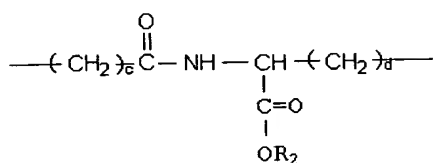
Claim 4. (Original) The polymer of claim 1, wherein said pendent group of R_9 is a benzyl carboxylate group.

Claim 5. Canceled

Claim 6. (Currently Amended) The polymer of claim [[5]] 1, wherein R_{12} has a structure selected from the group consisting of:

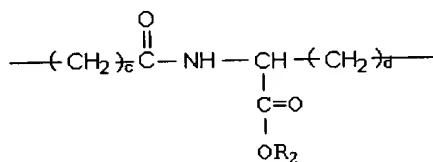


and



wherein $[[R_1]]$ R_2 is selected from the group consisting of straight and branched alkyl and alkylaryl groups containing up to 18 carbon atoms and derivatives of biologically and pharmaceutically active compounds covalently bonded to said polymer; and c and d are independently 0, 1 or 2.

Claim 7. (Original) The polymer of claim 6, wherein R_{12} has the structure:



wherein c is 2 and d is 1.

Claim 8. (Currently Amended) The polymer of claim $[[5]]$ 1, wherein said ester group of said pendent carboxylic acid ester group of R_{12} is a straight-chained alkyl group selected from the group consisting of ethyl, butyl, hexyl and octyl groups.

Claim 9. (Original) A block copolymer comprising the polymer of claim 1, block copolymerized with poly(alkylene oxide) repeating units, each poly(alkylene oxide) repeating

unit comprising between about 5 and about 3,000 alkylene oxide groups containing up to 4 carbon atoms.

Claim 10. (Original) The polymer of claim 9, wherein the alkylene group of each alkylene oxide is ethylene.

Claim 11. (Original) The polymer of claim 9, wherein each poly(alkylene oxide) repeating unit contains between about 20 and about 200 alkylene oxide groups.

Claim 12. (Currently Amended) A block copolymer comprising the polymer of claim [[5]] 1, block copolymerized with poly(alkylene oxide) repeating units, each poly(alkylene oxide) repeating unit comprising between about 5 and about 3,000 alkylene oxide groups containing up to 4 carbon atoms.

Claim 13. (Original) The block copolymer of claim 12, wherein the alkylene of each alkylene oxide is ethylene.

Claim 14. (Original) The block copolymer of claim 12, wherein each poly(alkylene oxide) repeating unit comprises between about 20 and about 200 alkylene oxide groups.

Claim 15. (Withdrawn) A medical device comprising the polymer of claim 1, adapted for implantation into the body of an animal.

Claim 16. (Withdrawn) The medical device of claim 15, wherein the device is in the form of a suture, bone implant, vascular graft or stent.

Claim 17. (Withdrawn) The medical device of claim 15, wherein the surface of said device is coated with said polymer.

Claim 18. (Withdrawn) The medical device of claim 15, comprising a biologically or pharmaceutically active compound in combination with said polymer, wherein said active compound is present in an amount sufficient for therapeutically effective site-specific or systemic drug delivery.

Claim 19. (Withdrawn) The medical device of claim 17, wherein said biologically or pharmaceutically active compound is covalently bonded to said polymer.

Claim 20. (Withdrawn) An implantable medical device in the form of a sheet consisting essentially of the polymer of claim 9 for use as a barrier for surgical adhesion prevention.

Claim 21. (Withdrawn) A method for site-specific or systemic drug delivery comprising implanting in the body of a patient in need thereof an implantable drug delivery device comprising a therapeutically effective amount of a biologically or pharmaceutically active compound in combination with the polymer of claim 1.

Claim 22. (Withdrawn) The method of claim 21, wherein said biologically or pharmaceutically active compound is covalently bonded to said polymer.

Claim 23. (Withdrawn) A method for preventing the formation of adhesions between injured tissues comprising inserting a barrier between said injured tissues a sheet consisting essentially of the polymer of claim 9.

Claim 24. (Withdrawn) A controlled drug delivery system comprising a biologically or pharmaceutically active agent physically coated with the polymer of claim 1.

Claim 25. (Withdrawn) A controlled drug delivery system comprising the polymer of claim 1 physically admixed with a biologically or pharmaceutically active agent.

Claim 26. (Withdrawn) A controlled drug delivery system comprising a biologically or pharmaceutically active agent physically embedded or dispersed into a polymeric matrix form from the polymer of claim 1.

Claim 27. (Withdrawn) A method of regulating cellular attachment, migration and proliferation on a polymeric substrate comprising contacting living cells, tissues or biological fluids containing living cells with the polymer of claim 1.

Claim 28. (Withdrawn) The method of claim 27, wherein said polymer is in the form of a coating on a medical implant.

Claim 29. (Withdrawn) The method of claim 27, wherein said polymer is in the form of a film.

Claim 30. (Withdrawn) The method of claim 27, wherein said polymer is in the form of a polymeric tissue scaffold.

Claim 31. (Withdrawn) The method of claim 27, wherein said polymer is a polycarbonate.

Claim 32. (Withdrawn) The method of claim 27, wherein said polymer is a polyarylate.

Claim 33. (Withdrawn) A method for the selective removal of pendent ester side chains comprising the steps of:

preparing a reaction mixture of the polymer of claim 1, in which the pendent group of R₉ is a benzyl carboxylate, in an anhydrous reaction solvent consisting essentially of one or more solvents selected from the group consisting of N, N-dimethylformamide, N,N-dimethylacetimide, and N-methylpyrrolidone; and

contacting said reaction mixture with a palladium catalyst in the presence of a hydrogen source, so that the benzyl groups of said pendent benzyl carboxylate groups are selectively removed by hydrogenolysis.

Claim 34. (Withdrawn) The method of claim 33, wherein said hydrogen source comprises hydrogen gas.

Claim 35. (Withdrawn) The method of claim 33, wherein said hydrogen source comprises 1,4-cyclohexadiene added to said reaction mixture.

Claim 36. (Withdrawn) The method of claim 35, wherein said 1,4-cyclohexadiene is added to said reaction mixture before said reaction mixture is contacted with said palladium catalyst.

Claim 37. (Withdrawn) The method of claim 34, wherein said hydrogen source further comprises 1,4-cyclohexadiene added to said reaction mixture.

Claim 38. (Withdrawn) The method of claim 33, wherein said palladium catalyst comprises palladium on barium sulfate.